

Hughes, Steven

January 20, 2016

1

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MISSOURI
EASTERN DIVISION

SIERRA CLUB,)
)
Plaintiff,)
) No. 14-cv-408-AGF
vs.)
) The Honorable
UNION ELECTRIC COMPANY, d/b/a) Audrey G. Fleissig
AMEREN MISSOURI,)
)
Defendant.)

VIDEOTAPED DEPOSITION OF STEVEN HUGHES

Taken on behalf of Plaintiff

January 20, 2016

(Starting time of the deposition: 9:25 a.m.)

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Exh. A

Hughes, Steven

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18 (The original exhibits were returned to Mr.
19 Entin, to be used in the continuing depositions.)
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1 APPEARANCES
2

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37 The Court Reporter:
38
39 Ms. Brenda Orsborn, RPR/CSR/CCR
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41 Illinois CSR No. 084-003460
42 Registered Professional Reporter.
43 The Videographer: Mr. Shaun Steele

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2 IN THE UNITED STATES DISTRICT COURT
3 FOR THE EASTERN DISTRICT OF MISSOURI
4 EASTERN DIVISION

5 SIERRA CLUB,)
6)
7 Plaintiff,)
8) No. 14-cv-408-AGF
9 vs.)
10) The Honorable
11 UNION ELECTRIC COMPANY, d/b/a Audrey G. Fleissig
12 AMEREN MISSOURI,)
13)
14 Defendant.)

15 VIDEOTAPED DEPOSITION OF WITNESS, STEVEN
16 HUGHES, produced, sworn, and examined on the 20th day
17 of January, 2016, between the hours of nine o'clock in
18 the forenoon and six o'clock in the evening of that
19 day, at the offices of Ameren Corporation, 1901
20 Chouteau Avenue, Room W409, St. Louis, Missouri 63103
21 before BRENDA ORSBORN, a Certified Court Reporter
22 within and for the State of Missouri, in a certain
23 cause now pending before the United States District
24 Court for the Eastern District of Missouri, Eastern
25 Division, wherein Sierra Club is the Plaintiff and
Union Electric Company, d/b/a Ameren Missouri is the
Defendant.

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1 IT IS HEREBY STIPULATED AND AGREED, by and
2 between counsel for Plaintiff and counsel for
3 Defendant, that the VIDEOTAPED DEPOSITION OF STEVEN
4 HUGHES may be taken in shorthand by Brenda Orsborn, a
5 Certified Court Reporter, and afterwards transcribed
6 into typewriting; and the signature of the witness is
7 expressly not waived.

8 VIDEOGRAPHER: We're on the record. Today's
9 date is January 20th, 2016, and the time is 9:25 a.m.
10 This is the video-recorded deposition of Steven Hughes
11 in the matter of Sierra Club versus Union Electric
12 Company doing business as Ameren Missouri, Case No.
13 14-cv-408-AGF in the United States District Court for
14 the Eastern District of Missouri, Eastern Division.

15 This deposition is being held -- this
16 deposition is being held at Ameren, 1901 Chouteau, St.
17 Louis, Missouri 63103. The reporter's name is Brenda
18 Orsborn. My name is Shaun Steele. I'm a certified
19 legal videographer, and we are with Midwest Litigation
20 Services. Will the attorneys present please introduce
21 themselves?

22 MR. ENTIN: My name is Scott Entin of Miner,
23 Barnhill & Galland on behalf of Sierra Club.

24 MR. BLUSTEIN: Ben Blustein, Miner, Barnhill
25 & Galland in Chicago on behalf of Sierra Club.

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1 MR. BALTMANIS: David Baltmanis, Miner,
 2 Barnhill & Galland, on behalf of Sierra Club.

3 MR. SAUL: James Saul of the Earthrise Law
 4 Center on behalf of Sierra Club.

5 MS. YOUNGBLOOD: Sarah Youngblood, Schiff
 6 Hardin, on behalf of defendant Ameren Missouri, and
 7 I'm joined by my partner, Matt Mock.

8 VIDEOGRAPHER: Will the court reporter
 9 please swear in the witness?

10 STEVEN HUGHES,
 11 of lawful age, being produced, sworn and examined on
 12 behalf of the Plaintiff, deposes and says:

13 VIDEOGRAPHER: Counsel, you may proceed.
 14 EXAMINATION

15 QUESTIONS BY MR. ENTIN:

16 Q. Good morning.

17 A. **Good morning.**

18 Q. How are you today?

19 A. **I'm good.**

20 Q. Okay. Bet you'd rather be other places. As
 21 you just heard, my name is Scott Entin. I represent
 22 Sierra Club in this case. We're here for the 30(b)(6)
 23 deposition of Ameren. Do you understand that Ameren
 24 has designated you to speak on behalf of the
 25 corporation on a matter of -- on a number of topics?

1 you answer a question that I ask or that your counsel
 2 asks, the record is going to reflect that you
 3 perfectly heard that question and perfectly understood
 4 that question. So it's very important that if you
 5 don't understand a question or haven't heard it
 6 properly, that you either ask me or the court reporter
 7 to rephrase the question or to ask it again; is that
 8 fair?

9 A. **Yes.**

10 Q. Okay. Is there any reason why you are
 11 unable to give truthful testimony here today?

12 A. **No.**

13 Q. Okay. Have you ever given a deposition
 14 before?

15 A. **No.**

16 Q. Okay. Have you ever given any kind of
 17 testimony before?

18 A. **No.**

19 Q. All right. You've never testified in front
 20 of any governmental body or regulatory committee?

21 A. **I have given comments in front of EPA
 22 regarding regulations, proposed regulations. Does
 23 that fit into that category?**

24 Q. Generally. Generally. And -- and that's
 25 really the extent of any sort of testifying that you

7

1 A. **Yes.**

2 Q. Okay. Before we get into the questions, I
 3 just want to go over a few ground rules with you.
 4 Generally, I like to take a break every hour. The
 5 deposition is not an endurance test. I just ask that
 6 if you need a break, let me know, and I will do my
 7 best to accommodate you as quickly as possible. I ask
 8 only that there is no question pending when we take a
 9 break; is that fair?

10 A. **Yes.**

11 Q. Okay. Your answers today, even though
 12 you're being recorded and videoed here, they need to
 13 be audible, out loud. So even though, you know,
 14 typically in conversation you might shake or nod your
 15 head, if your answer is yes or no, you need to give
 16 that answer out loud. Fair?

17 A. **Yes.**

18 Q. The same with "uh-huh," "uh-uh." Everyone
 19 does it during the course of a deposition. If I hear
 20 it, your counsel or I will correct you and make sure
 21 we understand that that was a "yes" or a "no." Okay?

22 A. **Yes.**

23 Q. The most important rule -- I'm sure I'll
 24 think of another at some point, but the most important
 25 rule during the course of the deposition is that if

1 can think of that you've done; is that fair?

2 A. **Yes.**

3 Q. Okay.

4 A. **To the best of my recollection.**

5 **[Marked Exhibit No. 1.]**

6 Q. (By Mr. Entin) Okay. Sir, you've just been
 7 provided a copy of what's been marked as Deposition
 8 Exhibit 1 to the Ameren 30(b)(6) deposition. Do you
 9 have that in front of you?

10 A. **Yes, I do.**

11 Q. Okay. Have you seen that document before?

12 A. **Yes.**

13 Q. Okay.

14 MS. YOUNGBLOOD: And, Scott, if I could just
 15 jump in real quickly, just for a procedural matter, if
 16 we could go ahead -- I guess we can mark this as
 17 Exhibit A for ease. I just want to get our objections
 18 marked.

19 MR. ENTIN: Sure, I don't have a -- we can
 20 mark Exhibit 1A.

21 **[Marked Exhibit No. 1A.]**

22 MS. YOUNGBLOOD: 1A, okay. That's fine with
 23 me. And just for the purposes of the record, we just
 24 marked Exhibit 1A, which is the objections and
 25 responses to Plaintiff's amended notice of Rule

8

9

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58 (Pages 226 to 229)

<p style="text-align: center;">226</p> <p>1 or shutdown would never be coded as Reason Code 1, 2 correct?</p> <p>3 A. Say that again.</p> <p>4 Q. Sure. An excess emission having -- strike 5 that.</p> <p>6 An excess emission resulting from an issue 7 related to startup or shutdown would not be 8 categorized as Reason Code 1, correct?</p> <p>9 A. No, that's not correct. You could have 10 pollution control equipment failure if that was the 11 cause. If it wasn't a startup or shutdown-related 12 cause -- if it was due to a TR set malfunctioning or 13 whatever, an SO3 system, they were having trouble 14 getting it started up during startup, which happens, 15 then that air pollution control equipment failure 16 would be the code that would be used, not startup, 17 because it didn't happen because of startup. It 18 happened because they couldn't get the SO3 system 19 fired up or whatever the control equipment problem 20 was.</p> <p>21 Q. Okay. If Reason Code 1 is assigned to an 22 excess emission, it is not the result of startup or 23 shutdown, correct?</p> <p>24 A. Correct. Well, yeah. It could be during a 25 startup or shutdown, but if you assign Reason Code 1,</p>	<p style="text-align: center;">228</p> <p>1 The definition for Reason Code 2 is intended -- or 2 strike that.</p> <p>3 "Reason Code 2 is intended to cover any 4 problem relating to the quality of the fuel ultimately 5 burned at non-FGD facilities." Do you see that?</p> <p>6 A. Yes.</p> <p>7 Q. What does "FGD" stand for?</p> <p>8 A. It stands for fluidized gas desulfurization.</p> <p>9 That's probably known maybe by you as a scrubber. We 10 don't have any scrubbers at any of these three plants 11 that we're talking about. We have one at our other 12 plant. We have two of them at our other plant.</p> <p>13 Q. "Blending or cleaning problems would also be 14 characterized as fuel problems, as would the use of 15 high sulfur fuel because of an interruption in the 16 supply of complying fuel or because of a supplier's 17 error or an error in coal sampling and analysis 18 results," et cetera, correct?</p> <p>19 A. Correct.</p> <p>20 Q. When Reason Code 2 is assigned, that is the 21 cause of the excess emission, correct?</p> <p>22 A. Correct.</p> <p>23 Q. That's been quality assured through the many 24 levels we've discussed at points of the deposition 25 today, correct?</p>
<p style="text-align: center;">227</p> <p>1 it should be because of something with the precip or 2 the SO3 injection system.</p> <p>3 Q. And this may seem -- again, this may seem 4 very basic, but it's important that I have all of this 5 straight on the record. Okay? So please indulge me 6 with your patience. When you use the term "precips," 7 you're referring to ESPs, the ESPs, correct?</p> <p>8 A. Yes, electrostatic precipitator is what ESP 9 stands for.</p> <p>10 Q. Right. And just -- I need the record clear 11 on this last question. When Reason Code 1 is assigned 12 for an excess emission, that excess emission is not 13 the result of startup or shutdown, correct?</p> <p>14 A. Yes. If a No. 1 is assigned, it's because 15 the excess emission was caused because of the air 16 pollution control equipment.</p> <p>17 Q. Right.</p> <p>18 A. Regardless of whether it was startup or 19 shutdown --</p> <p>20 Q. Okay.</p> <p>21 A. -- or baseline or whatever load you're at. 22 You're asking me the same thing over and over. I 23 don't understand --</p> <p>24 Q. I -- work with me, and we'll get through 25 this quickly. Okay. Reason Code 2, fuel problems.</p>	<p style="text-align: center;">229</p> <p>1 A. Correct.</p> <p>2 Q. That excess emission is not the result of 3 air pollution control equipment failure, startup or 4 shutdown, correct?</p> <p>5 A. Correct.</p> <p>6 Q. Okay. Reason Code 3 is process problems, 7 and it is intended to cover on-site equipment 8 failures, other than control equipment, correct?</p> <p>9 A. Correct.</p> <p>10 Q. When Reason Code 3 is assigned, the excess 11 emission is not the result of startup or shutdown, 12 correct?</p> <p>13 A. Correct.</p> <p>14 Q. And it's not the result of air pollution 15 control equipment failure either, correct?</p> <p>16 A. Correct.</p> <p>17 Q. "Reason Code 4, unknown cause, is intended 18 to apply to all excess emissions for which the 19 operator must guess at the reason (even though his 20 guess might be a good one)." Did I get that 21 correctly?</p> <p>22 A. Yes.</p> <p>23 Q. Okay. "It would not apply to an equipment 24 failure even though the reason for failure is not 25 known." Did I read that correctly?</p>

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<p style="text-align: center;">230</p> <p>1 A. Yes.</p> <p>2 Q. Can you explain that last sentence to me?</p> <p>3 A. "Would not apply to an equipment failure</p> <p>4 even though the reason for failure is not known." I'm</p> <p>5 drawing a blank here. My mind is not working for me</p> <p>6 here.</p> <p>7 Q. Let's take a --</p> <p>8 A. "Would not apply to an equipment failure."</p> <p>9 Q. I'm going to ask you a different question,</p> <p>10 and we can come back to this. Okay?</p> <p>11 A. Okay.</p> <p>12 Q. All right. When Reason Code 4 is assigned,</p> <p>13 the reason for the excess emission is not startup and</p> <p>14 is not shutdown, correct?</p> <p>15 A. Correct.</p> <p>16 Q. And it is not air pollution control</p> <p>17 equipment failure, according to this last sentence.</p> <p>18 Would you agree with that?</p> <p>19 A. There's -- probably not, but there's no way</p> <p>20 to be sure because you don't know what caused it.</p> <p>21 Q. And is there a QA process specific to</p> <p>22 unknown cause that maybe is unlike the other reason</p> <p>23 codes that are assigned?</p> <p>24 A. By QA process, the only QA process would be</p> <p>25 trying to figure out what could have caused it, and if</p>	<p style="text-align: center;">232</p> <p>1 operator just couldn't figure it out, so that's the</p> <p>2 way it is."</p> <p>3 Q. And then eventually that excess emission</p> <p>4 gets to you or your office, and it's quality assured</p> <p>5 there to make sure the most accurate information is</p> <p>6 provided with respect to that event, correct?</p> <p>7 A. There again, if it's an outlier. If it's --</p> <p>8 if there's not a rash of these unknowns down, if it's</p> <p>9 the only one, then I would probably assume, hey, this</p> <p>10 operator -- this engineer out there has looked into</p> <p>11 this, or there's just nothing there, and we go with</p> <p>12 it. There's only a certain amount of detail we can</p> <p>13 put into this work. You know, there's -- like I said</p> <p>14 earlier today, we're talking about over 5 million</p> <p>15 opacity periods that came into this -- this deposition</p> <p>16 and, what, close to 5,000 exceedances, I believe. So</p> <p>17 that's a lot of review. There's just not enough time</p> <p>18 to go to the level of detail that you're talking about</p> <p>19 on every single one.</p> <p>20 Q. I'm not suggesting -- I don't mean to be</p> <p>21 suggesting that Ameren should be going into any</p> <p>22 different level of detail when assigning Reason Code</p> <p>23 4. I just need to make sure that I understand that</p> <p>24 Ameren's operators -- well, strike that.</p> <p>25 When Reason Code 4 is assigned, Ameren's</p>
<p style="text-align: center;">231</p> <p>1 you can't find anything, it's an unknown cause. And</p> <p>2 that's the processes. You go through the same</p> <p>3 avenues, and when you can't find anything, you end up</p> <p>4 putting down "unknown."</p> <p>5 Q. So when -- when Reason Code 4 is assigned to</p> <p>6 an excess emission, the unit operator has taken his or</p> <p>7 her best guess at the cause of the emission, based on</p> <p>8 what he or she has seen in the control room, seen on</p> <p>9 the monitors and just generally observed, correct?</p> <p>10 A. Correct.</p> <p>11 Q. Then once that Reason Code 4 has been</p> <p>12 assigned, at some point it's going to be observed --</p> <p>13 strike that.</p> <p>14 Reviewed by maybe the shift supervisor or</p> <p>15 someone else at that plant, correct?</p> <p>16 A. And then by the plant engineer.</p> <p>17 Q. And then by the plant engineer or the -- the</p> <p>18 plant CEMS engineer or the CEMS specialist, correct?</p> <p>19 A. Correct.</p> <p>20 Q. And those individuals also, you would</p> <p>21 expect, would try to identify the cause based on the</p> <p>22 sources of information available?</p> <p>23 A. Possibly. Possibly they may just go with</p> <p>24 the unknown. If it's the only one they've seen from</p> <p>25 that unit for quite a while, they may say, "Hey, the</p>	<p style="text-align: center;">233</p> <p>1 operators, who are the folks on the ground when the</p> <p>2 exceedance is occurring, seeing the equipment,</p> <p>3 observing all the data and information available to</p> <p>4 them, they have assigned Reason Code 4, and that's</p> <p>5 their best estimate of the reason for the exceedance,</p> <p>6 correct?</p> <p>7 A. Correct.</p> <p>8 Q. Then there is a second and maybe even a</p> <p>9 third level of review before it gets to you, during</p> <p>10 which shift supervisors or other personnel who are</p> <p>11 also in the control room or potentially in the control</p> <p>12 room during that exceedance period have an opportunity</p> <p>13 to observe all of the data available and identify a</p> <p>14 reason code, yet unknown cause is their best estimate</p> <p>15 of the potential cause for that exceedance, correct?</p> <p>16 A. And it's not just for unknown cause. It's</p> <p>17 for all eight of these causes. The same applies.</p> <p>18 Q. The same applies?</p> <p>19 A. We do our best at identifying what caused</p> <p>20 the excess emission and apply that code.</p> <p>21 Q. Correct. And then after the shift</p> <p>22 supervisor or that secondary level of personnel who</p> <p>23 might be in the control room, there's also a devoted</p> <p>24 specialist or engineer in each plant who reviews the</p> <p>25 reason codes, reviews the data available, if there's a</p>

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<p style="text-align: center;">234</p> <p>1 question about the best identifier for a reason code 2 or the best reason code to apply, and that process 3 occurs, correct?</p> <p>A. Correct.</p> <p>4 Q. And then it gets to you, and you have the 5 same opportunity, and at the end of the day, when that 6 Excess Emission Report goes out to the DNR, it has 7 gone through multiple levels of review at Ameren. 8 Ameren has done everything in its capability to assign 9 the most appropriate reason code for each exceedance, 10 correct?</p> <p>A. That's correct.</p> <p>11 Q. Reason Code 5 is startup, and that's also 12 defined in the Code of Federal Regulations section 13 that I marked as -- I think it's Exhibit 15 to the 14 deposition, but it's also quoted here in part in 15 Exhibit 5, correct?</p> <p>A. Correct.</p> <p>16 Q. And so if the cause, the specific cause, of 17 an excess emission was the startup process, this is 18 the code that is applied, correct?</p> <p>A. That's correct.</p> <p>19 Q. Okay. And so if there was some sort of air 20 pollution control equipment failure that occurred, but 21 was not the cause of the excess emission, then</p>	<p>1 And this reason code is intended to cover all known 2 causes of excess emissions that are not already 3 covered, correct?</p> <p>A. That's correct.</p> <p>4 Q. Okay. Reason Code 7 would never be applied 5 if there was some sort of equipment -- air pollution 6 control equipment failure, correct?</p> <p>A. No, it shouldn't be.</p> <p>7 Q. And Reason Code 7 would also never be 8 assigned when the cause of the excess emission was a 9 startup or shutdown event, correct?</p> <p>A. No, it should not be.</p> <p>10 Q. If there is some sort of time testing going 11 on at Ameren and you notify the DNR that you're going 12 to be testing in a week or two and there might be some 13 excess emissions, is that the type of scenario where 14 Reason Code 7 would apply if, in fact, there were 15 excess emissions during that testing?</p> <p>A. Yes, exactly.</p> <p>16 Q. Okay. Generally, are there other scenarios 17 that you can identify for the record today that -- 18 where other known causes, Reason Code 7 would apply?</p> <p>A. None that I can think of.</p> <p>19 Q. Okay. That brings us to Reason Code 8, 20 shutdown. That's also defined by 480CFR60.2, correct?</p>
<p style="text-align: center;">235</p> <p>1 startup -- and startup was -- startup is the code that 2 should be applied in that hypothetical scenario, 3 correct?</p> <p>A. That's correct.</p> <p>4 Q. Okay. Reason Code 6 is soot blowing. And 5 it refers to "The periodic removal of soot, slag 6 and/or fly ash from the firebox walls or the tubes of 7 fuel burning equipment by the use of compressed air, 8 steam or water." Did I say that right?</p> <p>A. Yes.</p> <p>9 Q. Soot blowing is a regular process that's 10 necessary at coal-fired power plants, correct?</p> <p>A. Correct.</p> <p>11 Q. And occasionally there might be an excess 12 emission event that is caused by the soot-blowing 13 process procedure, correct?</p> <p>A. That's correct.</p> <p>14 Q. And when that happens, soot blowing, Reason 15 Code 6 is applied to the excess emission, correct?</p> <p>A. That's correct.</p> <p>16 Q. And so that excess emission, when Reason 17 Code 6 is assigned to it, is not caused by control 18 equipment failure, startup or shutdown, correct?</p> <p>A. That's correct.</p> <p>19 Q. Okay. "Reason Code 7, other known causes."</p>	<p>237</p> <p>1 A. Correct.</p> <p>2 Q. And that reason code is only assigned when 3 the excess emission is caused by the shutdown or 4 cessation of operation of the facility, the unit, 5 correct?</p> <p>A. Correct.</p> <p>6 Q. Okay. If there's an air pollution control 7 equipment failure, it would not be assigned Reason 8 Code 8, correct?</p> <p>A. Correct.</p> <p>9 Q. At the bottom right-hand corner of Exhibit 10 5, do you see the date March 29th, 1989?</p> <p>A. Yes.</p> <p>11 Q. Did you know that that was my dog and my 12 grandmother's birthday?</p> <p>A. No, I didn't know that.</p> <p>13 MS. YOUNGBLOOD: Your dog was born in '89 14 and your grandmother was born in '89?</p> <p>15 MR. ENTIN: Well, not '89. You got me. 16 It's not -- imprecisely my question once again. March 17 29th.</p> <p>18 Q. (By Mr. Entin) Anyway, is there any 19 significance to you or Ameren of that date?</p> <p>A. That's the date that I created that Word 20 document. We barely had PCs then, so --</p>

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